

REMARKS

Claims 1, 2, 4-6, 8, 20-22, 24-26, 28, 30, 31, and 33 are pending in this application.

Applicant has amended claims 1, 5, 20, 22, 24, 26, 28, 30, 31, and 33. The changes to these claims made herein do not introduce any new matter.

Rejection Under 35 U.S.C. § 112

Applicant respectfully requests reconsideration of the rejection of claims 1, 2, 4-6, 8, 20-22, 24-26, 28, 30, 31, and 33 under 35 U.S.C. § 112, second paragraph, as being indefinite. In support of the indefiniteness rejection, the Examiner alleges that the meaning of the phrase “the number of which is greater than the threshold values” is unclear. As will be explained in more detail below, Applicant has amended the independent claims to address the indefiniteness issue noted by the Examiner.

Independent claim 1, as amended herein, recites that “each of the dither matrices comprises a plurality of threshold values selected from among various types of threshold values mapped in a two-dimensional array, wherein the number of the selected threshold values is equal to the number of pixels included in each of the pixel groups and the number of types of threshold values mapped in the two-dimensional array is greater than the number of the pixels included in each of the pixel groups.” The other independent claims in the application have been amended to include similar language.

The present claim language clarifies 1) that the number of the selected threshold values is equal to the number of pixels included in each of the pixel groups, and 2) that the number of the types of threshold values mapped in the two-dimensional array is greater than the number of pixels included in each of the pixel groups. Applicant further notes that it is not a local dither matrix of 2 x 4 that is mapped in a two-dimensional array, but rather a global matrix of, for example, 64 x 64.

In view of the foregoing, Applicant respectfully submits that the claim language is sufficiently clear to enable one having ordinary skill in the art to determine the boundaries of what constitutes infringement of the claims. See MPEP § 2173. Accordingly, Applicant submits that claims 1, 2, 4-6, 8, 20-22, 24-26, 28, 30, 31, and 33 satisfy the definiteness requirement of 35 U.S.C. § 112, second paragraph, and requests that the rejection of these claims thereunder be withdrawn.

Rejection Under 35 U.S.C. § 103

Applicant respectfully requests reconsideration of the rejection of claims 1, 2, 4-6, 8, 20-22, 24-26, 28, 30, 31, and 33 under 35 U.S.C. § 103(a) as being unpatentable over *Zhang* (US 5,359,430) in view of *Troxel* (US 5,124,803). As will be explained in more detail below, the combination of the *Zhang* and *Troxel* references would not have rendered the subject matter defined in independent claims 1, 5, 20, 22, 24, 26, 28, 30, 31, and 33, as amended herein, obvious to one having ordinary skill in the art.

In support of the obviousness rejection, the Examiner states that the *Troxel* reference teaches that “each of the dither matrices 80 Fig. 9b comprises a plurality of threshold values selected from among various types of threshold values (dither threshold values shown as integers 1-16 in Fig. 9b), the number of which is greater than the number of the pixels included in each of the pixel groups (the numbers in the threshold are 1-16 are greater than the numbers of the pixel groups going from 0-7) and maps the plurality of threshold values in a two-dimensional array (threshold array column 12, line 33).” Office Action at pages 6-7. Applicant respectfully traverses the Examiner’s characterization of the *Troxel* reference relative to the claimed subject matter.

In Figure 9A of *Troxel*, a halftone dot area is divided into multiple areas by assigning different numbers to them, i.e., the labels 0-7 are given to the respective areas. *Troxel* does not intend to use the areas to form pixel groups, but instead uses the different numbers as

labels for use in subsequent processing. Even if each of the areas with the labels of 0-7 assigned thereto were to be considered to correspond to a pixel group, it is not the number of pixel groups but rather “the number of pixels” included in a pixel group that is pertinent to the claimed subject matter.

As noted above, the numbers 0-7 shown in Figure 9A are used for purposes of labeling. Each of the pixel areas bearing the label 0-3 and 7 consists of 16 pixels of a 4 x 4 configuration. There are four (4) different areas labeled as “4” and each of these areas includes 16 pixels in total. As to areas with labels 5 and 6, there are two (2) areas for each of these labels, and these areas also include, in total, 16 pixels. As shown in Figure 9B, which indicates the corresponding threshold values, each of the areas labeled as the same number is assigned a threshold value of 1-16. Thus, for sake of argument, even if each of the areas bearing numbers 0-7 were to be considered to be a pixel group consisting of 16 pixels, the number of types of the threshold values given to the pixel group would be 16, i.e., 1-16. In this case, the number of types of threshold values (16) is the same as the number of pixels in each “pixel group” (16). As such, for at least this reason, there is no teaching or suggestion in *Troxel* regarding the number of types of the threshold values being *greater than* the number of pixels included in each of the pixel groups, as specified in the presently claimed subject matter.

In view of the foregoing, even if one having ordinary skill in the art were to combine the *Zhang* and *Troxel* references in the manner proposed by the Examiner, the result of this combination would not have included each and every feature of the presently claimed subject matter. As such, the combination of the *Zhang* and *Troxel* references would not have rendered the presently claimed subject matter obvious to one having ordinary skill in the art.

Accordingly, independent claims 1, 5, 20, 22, 24, 26, 28, 30, 31, and 33, as amended herein, are patentable under 35 U.S.C. § 103(a) over the combination of *Zhang* in view of

Troxel. Claims 2 and 4, each of which depends from claim 1, claims 6 and 8, each of which depends from claim 5, claim 21, which depends from claim 20, and claim 25, which depends from claim 24, are likewise patentable under 35 U.S.C. § 103(a) over the combination of *Zhang* in view of *Troxel* for at least the same reasons set forth above with regard to the applicable independent claim.

Conclusion

In view of the foregoing, Applicant respectfully requests reconsideration and reexamination of claims 1, 2, 4-6, 8, 20-22, 24-26, 28, 30, 31, and 33, as amended herein, and submits that these claims are in condition for allowance. Accordingly, a notice of allowance is respectfully requested. In the event a telephone conversation would expedite the prosecution of this application, the Examiner may reach the undersigned at (408) 749-6902. If any additional fees are due in connection with the filing of this paper, then the Commissioner is authorized to charge such fees to Deposit Account No. 50-0805 (Order No. MIPFP178).

Respectfully submitted,
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